# RHEUMATISM

METROPOLITAN LIFE INSURANCE COMPANY
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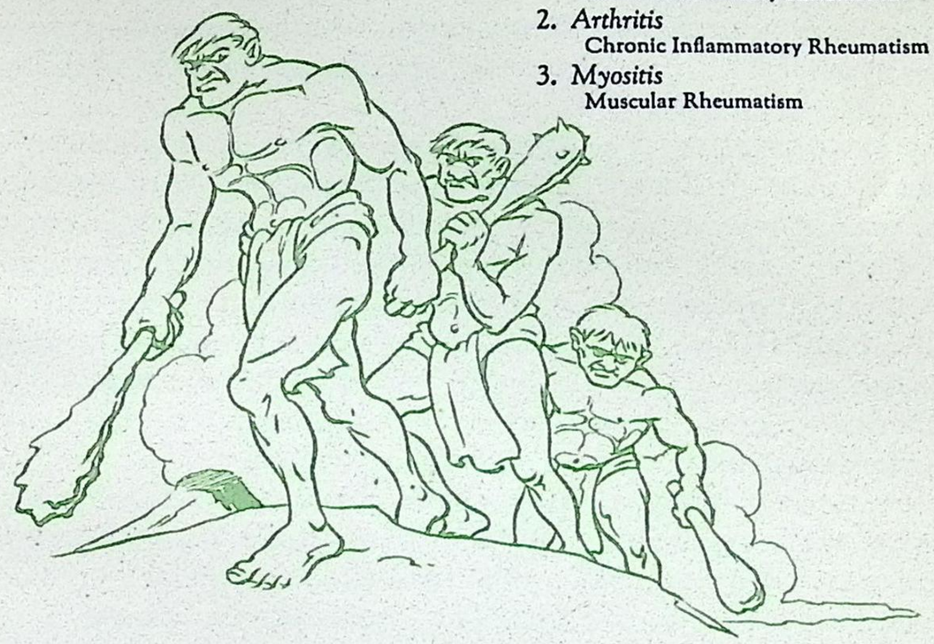
*Prepared with the*
*Cooperation and Advice*
*of the*
*American Rheumatism Association*

## THE BIG 3

IN THE RHEUMATISM FAMILY

1. *Rheumatic Fever*
   Acute Inflammatory Rheumatism
2. *Arthritis*
   Chronic Inflammatory Rheumatism
3. *Myositis*
   Muscular Rheumatism



RHEUMATISM is the family name for a group of diseases which differ from one another in many respects but which are alike in producing inflammation of the joints or muscles. In itself rheumatism is rarely fatal, but chronic rheumatism is one of the most crippling of all diseases, and rheumatic fever may severely injure the heart.

Any persistent ache or pain in the joints or muscles should have immediate medical attention. It may not be rheumatic—*but* let the doctor decide.

## RHEUMATIC FEVER

***Acute Inflammatory Rheumatism***

WHAT IT IS. Rheumatic fever is an infectious disease which is most common among children and young people. The infection causes inflammation of the joints, which may spread later to other organs of the body, especially to the heart.

If the inflammation of the heart is slight, the patient may recover completely; but if the inflammation is severe, the heart probably will be damaged permanently. The condition caused when the heart has been injured by rheumatic fever is called rheumatic heart disease. Many persons who had rheumatic fever in childhood die from rheumatic heart disease in early adult life.

WHAT CAUSES IT. The identity of the germ or virus which is the direct cause of rheumatic fever is still in doubt. An attack of rheumatic fever frequently is preceded by a cold or sore throat. Probably the infection first lodges in the tonsils or mucous membrane of the throat and later affects the joints and other parts of the body. There is some indication that new drugs (notably sulfanilamide) may prove helpful in checking recurrences of rheumatic fever. Present experience indicates, however, that sulfanilamide should not be used in the acute stage.

Indirectly, low physical resistance is a factor in the development of rheumatic fever. Children whose health is poor—undernourished children, children who have had one cold after another—are the ones who are most likely to catch the disease. One attack of rheumatic fever does not prevent another. In more than half of the children who have once had the disease attacks recur in later life; five or six years after the first attack a cold or sore throat or some other infection often stirs up rheumatic fever again. Each time it recurs the heart may be damaged further.

***Factors Associated With the Development of Rheumatic Fever***

1. Undernourishment.
2. Chronic fatigue.
3. Exposure to severe weather.
4. Repeated colds or other infections of the nose and throat.

HOW TO RECOGNIZE IT. The most striking symptom of rheumatic fever is pain in the joints. The pain may begin in one joint, perhaps the knee or elbow, and later spread to others. Sometimes several joints are affected at the same time, and the symptoms jump from joint to joint. Fortunately the joints are practically never permanently damaged.

The onset of rheumatic fever may be sudden, with profuse sweating, high fever, and inflamed swollen joints. Or the symptoms may appear gradually over a period of weeks or months. During this time there is pain in the joints, and usually a low fever and loss of weight. Pallor, night sweats, and nosebleeds occur in many cases. About half the children with rheumatic fever develop chorea, or St. Vitus's dance—a nervous twitching of the face, arms, or legs.

***Children Who Have Once Had Rheumatic Fever Should Have:***

A medical examination at regular intervals.

Long hours of sleep and rest.

Foods that meet all of the body's needs.

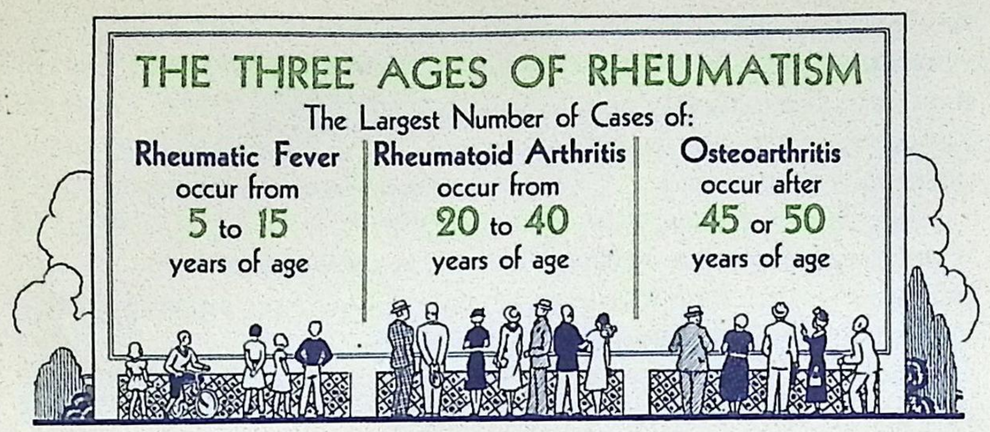
Protection from cold, damp weather.

Protection from colds and other infections.

WHAT TO DO FOR IT. If your child complains of pain in the joints, consult a doctor at once and follow his directions. Even a light attack of rheumatic fever may seriously injure the heart. The acute stage of the disease may last only for a few weeks, but actually the infection may persist for a much longer time, and relapses are to be expected.

During the acute stage there is a greatly increased need for vitamins, especially vitamin C. The doctor will tell how these may be supplied. There is no drug that will cure rheumatic fever, although the doctor may prescribe medicines that will help to relieve the joint pains and fever. A long period of rest in bed is the only effective treatment.

*Remember:* REST, *AND REST ONLY,* CAN PROTECT THE HEART




## ARTHRITIS

***Chronic Inflammatory Rheumatism***

WHAT IT IS. Arthritis is a chronic inflammatory disease of the joints which produces pain, swelling, stiffness, and eventually deformity. There are two types of arthritis—rheumatoid arthritis and osteoarthritis. In rheumatoid arthritis, inflammation of the joint leads eventually to wasting away of the joint cartilage and later to thinning of the bones at the joint. In osteoarthritis the changes which take place in the joint are degeneration of cartilage and overgrowth of bone.

WHAT CAUSES IT. The onset and development of both forms of arthritis are related to the health of the body as a whole, much as seed is related to the soil in which it grows. Anything that weakens the constitution—prolonged mental or physical strain, exposure to cold or wet, poor food habits, chronic constipation, or poor body mechanics—may furnish favorable soil for the seed, or exciting cause, of arthritis. A tendency to develop arthritis also may run in families.

***How Arthritis Differs From Rheumatic Fever***

1. It seldom attacks children.
2. It is a chronic disease rather than an acute one.
3. It does not involve the heart.
4. It does more damage to the joints.



## RHEUMATOID ARTHRITIS

Rheumatoid arthritis begins, as a rule, before age 40, and infection appears to play an important part in its onset. Frequently the exciting cause is a localized infection in the teeth, tonsils, nasal sinuses, genito-urinary tract, or intestinal tract. Exposure to cold and dampness, severe nervous strain, or injury to the affected joint may bring on an attack.

Before definite symptoms of rheumatoid arthritis appear, the person attacked may have a feeling of being below par. He may find his daily task hard, his appetite poor, his digestion not so good as usual, his bowels disordered. He may notice that he has less color than before and that he is losing weight.

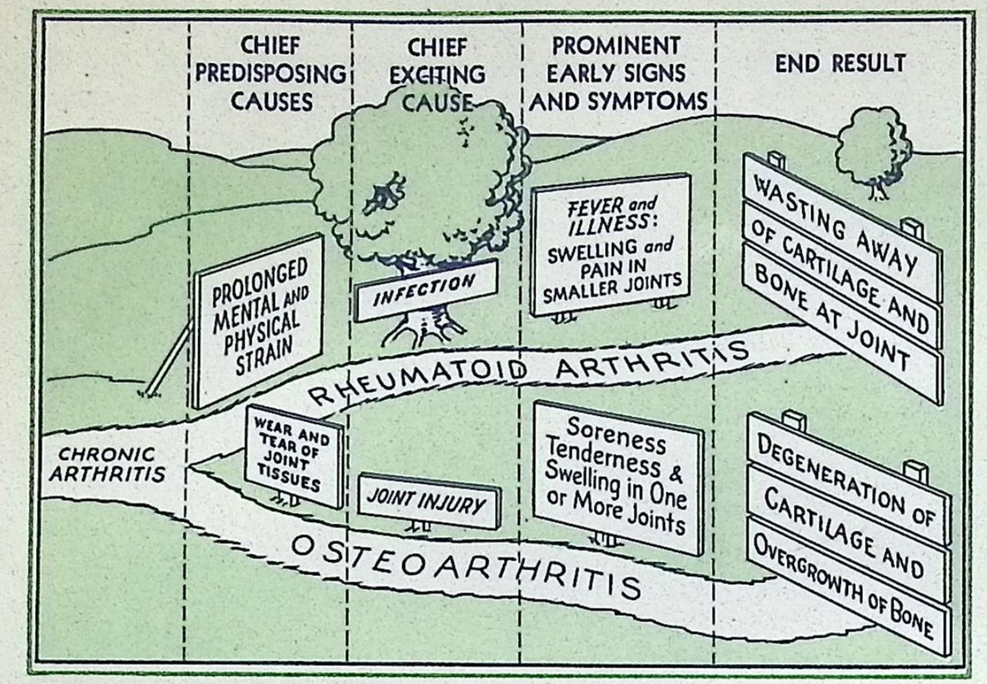
RHEUMATISM FLOURISHES BEST IN THE NORTH TEMPERATE ZONE DURING THE WINTER AND SPRING MONTHS
RHEUMATISM IS COMPARATIVELY RARE IN WARM CLIMATES

Active disease may begin suddenly with fever and inflammation of several joints, or it may develop slowly with swelling, pain, and stiffness involving one joint after another. The joints in the fingers and feet are usually affected first. Frequently there are periods of fever and illness when fresh joints become affected, followed by periods when the disease is inactive. If untreated, rheumatoid arthritis may progress until finally permanent stiffening of the larger joints results in varying degrees of helplessness.

## OSTEOARTHRITIS

Osteoarthritis is essentially a disease of middle and old age. It rarely occurs before age 50. It is the result of wear and tear of the joint tissues and because of this fact appears first in the joints which receive the hardest usage. The most common *immediate* cause is injury to a joint or to several joints.

Changes in the condition of the joints may take place gradually over a period of years, and as a result the joint tissues become weakened and less elastic. It is believed that repeated minor injuries are partly responsible for this. After the age of 50 the


CHIEF PREDISPOSING CAUSES
CHIEF EXCITING CAUSE
PROMINENT EARLY SIGNS AND SYMPTOMS
END RESULT
PROLONGED MENTAL AND PHYSICAL STRAIN
INFECTION
FEVER and ILLNESS: SWELLING and PAIN IN SMALLER JOINTS
WASTING AWAY OF CARTILAGE AND BONE AT JOINT
RHEUMATOID ARTHRITIS
CHRONIC ARTHRITIS
WEAR AND TEAR OF JOINT TISSUES
JOINT INJURY
Soreness Tenderness & Swelling in One or More Joints
DEGENERATION OF CARTILAGE AND OVERGROWTH OF BONE
OSTEOARTHRITIS

joints do not stand strains so well as they did in youth, and even a slight injury may set up osteoarthritis.

Osteoarthritis often attacks hale, well-nourished people. The onset is usually gradual. The person affected may first notice tenderness, soreness, and slight swelling in one or more joints. The joints of the fingers and thumb may be attacked first, or one or more of the large joints—for example, the hip or knee—may be involved. The affected joint becomes swollen and thickened and creaks or grates on movement. It may become stiff after periods of rest and loosen up during periods of activity. The pain is usually moderate but may become very severe when the joint is overused.

Osteoarthritis is a much less crippling disease than rheumatoid arthritis. After proper treatment the person may have no more pain and may regain more or less ability to use his joints according to his age. But when the disease is not treated, it grows progressively worse. Small loose pieces of bone and gristle may develop in the joints and hamper movement as effectively as would a small steel wedge caught in the gears of an automobile. This obstruction may make the sufferer feel unsafe and may suddenly throw him.



WHAT TO DO FOR ARTHRITIS. The first thing to do is to consult a physician *before* severe damage has been done to the joints. Little can be done after the joints are deformed permanently. When proper treatment is obtained early, the possibility of complete recovery is strong and the likelihood of improvement and relief is almost certain.

In general, the relief which the sufferer from arthritis can obtain and the extent to which crippling and deformity can be prevented depend largely upon the patient and his willingness to cooperate with his physician. Specific treatment will depend upon the type of arthritis from which the patient is suffering, but the restoration of general good health will have much to do with his chances of recovery. Probably the physician will suggest a plan of living for the patient to follow. Perseverance in following this plan is of the utmost importance. Even when improvement is slow he should not give way to anxiety and discouragement. Peace for the mind is as important to recovery as is rest for the body.

The factor of infection is not so closely related to osteoarthritis as to rheumatoid arthritis, but, in either case, the physician will probably have a thorough search made for abscessed teeth, infected tonsils, or any other focus of infection that may be lowering general physical resistance or acting as the exciting cause of the trouble. Since localized infections are always possible causes of ill health, physicians may advise their eradication when it is possible to do so.

***To Prevent Chronic Arthritis***

1. Keep weight normal for height, age, and body build.
2. Get enough rest and sleep.
3. Try to maintain good posture.
4. Exercise daily, but guard against joint strain and injury.
5. Wear enough clothing to keep warm and dry outdoors in cold, wet weather.
6. Consult a physician if you take cold often.
7. Eat a variety of foods daily, including those which are rich in vitamins, minerals, and roughage.
8. Guard against worry.
9. Have regular medical and dental examinations.

Certain adjustments in the diet may be prescribed, depending upon whether or not the patient's weight is normal for his type, weight, and age. Patients who are anemic and underweight need building up with plentiful amounts of nourishing foods selected to meet their individual needs and to supplement any medication the doctor may advise. Milk, vegetables (especially the green-leaf varieties), whole-grain cereals and bread, eggs, butter, and meat should all be included. Usually it is desirable to have some good source of vitamin D, such as fish-liver oil or one of the specially prepared concentrates of this vitamin.

If the patient is overweight, as is often the case in osteoarthritis, he may feel better if his weight is gradually reduced to normal under the guidance of his physician. The diet should include all the food elements essential to health but should be low in calories.

To avoid or to correct constipation it is important to drink plenty of water; to eat laxative-producing foods—whole-grain bread and cereals, dried fruits of various kinds, and green-leaf vegetables; and to establish the habit of regular elimination.

The physician will probably check the patient's posture and give instructions for the correction of defects if any are present.

Rest and the avoidance of overexercise of the affected joints is important. It may be necessary to protect the joints from painful motion by bandages and splints. In some cases the patient may be encouraged to use the joints gently, as long as they do not hurt or do not become stiffer the day after use.

The application of heat to the joints with hot packs or electrical bakers, combined with massage of the muscles above and below the joints, increases the supply of blood to the joints, but treatments of this kind (physiotherapy) should be applied only under the supervision of a physician. If the joints remain crippled after the disease itself has been stopped, surgery may be used to make them more useful and less painful.

Vaccines in the past have been much abused but are often quite beneficial for rheumatoid arthritis when employed by an experienced physician. In osteoarthritis, vaccines are of very doubtful value.

No drugs should be used without consulting the doctor. Patent medicines which promise quick relief from chronic arthritis do



not cure the disease and may make it worse. The doctor may prescribe drugs to relieve pain, but they will not cure the disease.

The doctor will probably suggest periodic check-ups on the health, including X-ray examinations and laboratory tests.

## MUSCULAR RHEUMATISM OR MYOSITIS

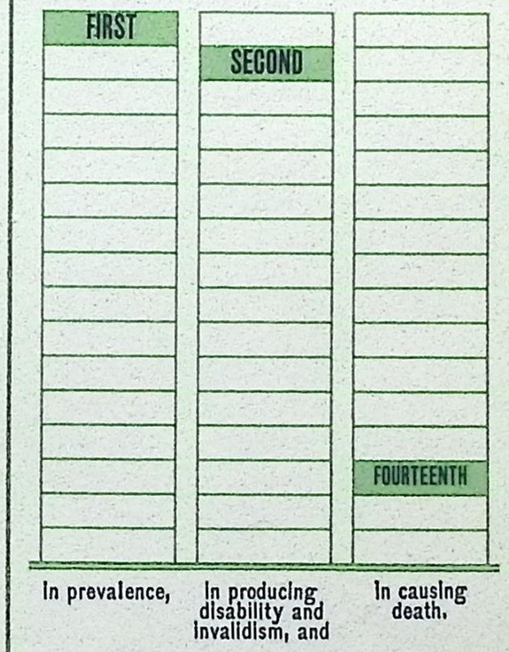
Myositis is an inflammation of the voluntary muscles which produces tenderness, pain, and stiffness. An attack of myositis may either be short and sharp or mild and prolonged. Almost any muscle or group of muscles may be affected, but those usually involved are the muscles in the back of the neck, those in the lumbar region of the back, or those of the shoulder and arm. The affected muscles hurt chiefly or only when they are being used.

The commonest cause of acute myositis is muscle strain resulting from overuse of a muscle or group of muscles. The effect produced is similar to the muscular soreness and stiffness experienced after unusual or vigorous exercise. The chronic form of myositis is frequently associated with chronic arthritis and may lead to the wasting away of the muscle group involved.

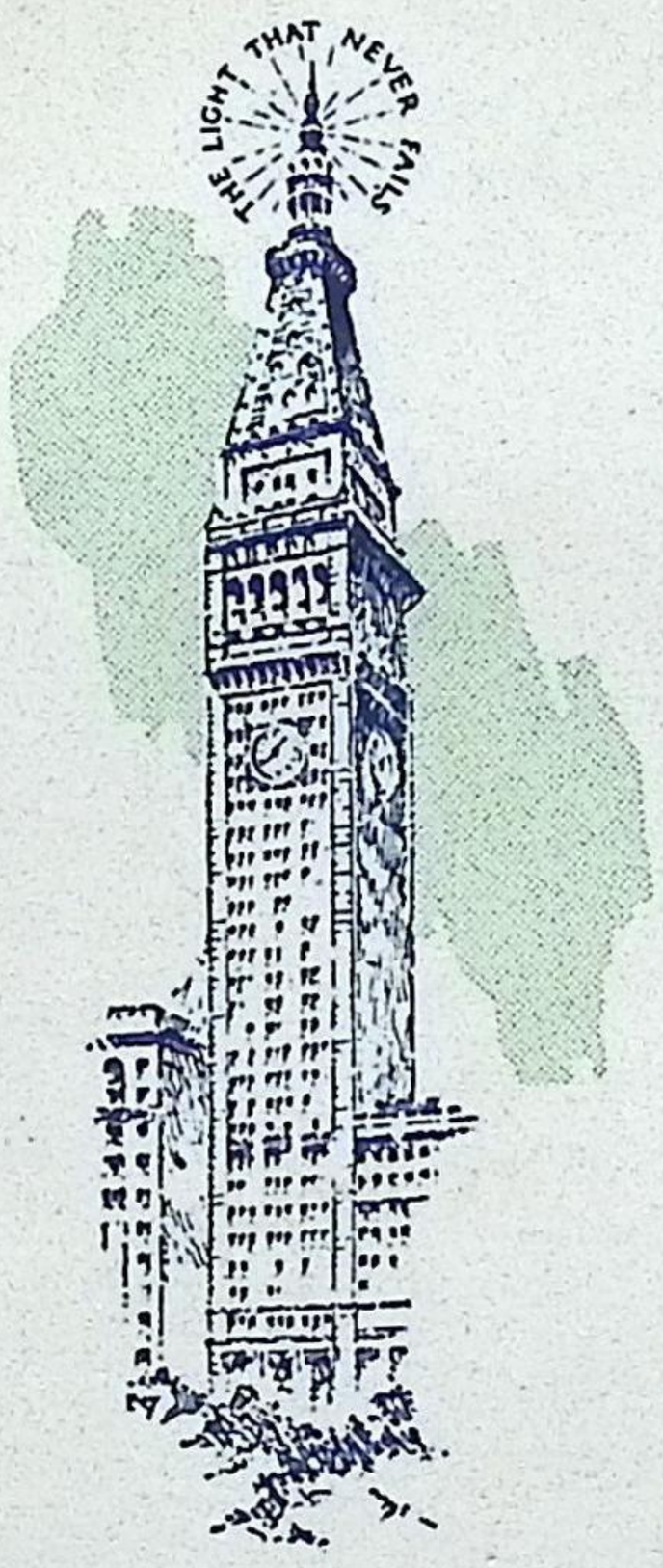
Myositis yields most readily to rest, heat, and massage under the direction of a physician. In chronic cases it may be necessary to build up the health and to look for and eliminate foci of infection as in the general treatment of arthritis.

**The Social and Economic Significance of Rheumatism**

**Among chronic diseases in the United States, RHEUMATISM ranks–**




*From a survey of 2,800,000 persons made by the United States Public Health Service.*

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